

Attorney Docket No. 9336-3

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Timothy M. Crowder et al.  
Serial No.: 10/606,678  
Filed: June 26, 2003  
For: **DRY POWDER DOSE FILLING SYSTEMS AND RELATED METHODS**

Confirmation No.: 5316  
Group Art Unit: 2857  
Examiner: Khoi H. Tran

**RECEIVED**  
**CENTRAL FAX CENTER**

JAN 06 2005

Date: January 6, 2005

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. § 1.97(b)**


Sir:

Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the amendment by the U.S. Patent and Trademark Office to 37 C.F.R. § 1.98(a)(2)(ii) effective October 21, 2004.

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. § 1.97(b) before the mailing of a first Office Action on the merits.

No fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

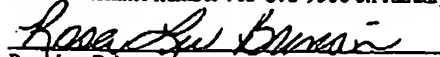
Respectfully submitted,

  
Julie H. Richardson  
Registration No. 40,142

Myers Bigel Sibley & Sajovec, P.A.  
P. O. Box 37428  
Raleigh, North Carolina 27627  
Telephone: (919) 854-1400  
Facsimile: (919) 854-1401  
Customer No. 20792

**CERTIFICATION OF FACSIMILE TRANSMISSION**  
**UNDER 37 CFR 1.8**

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office via the central facsimile number 703-872-9306 on January 6, 2005.

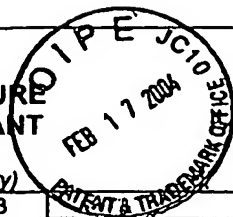
  
Rosa Lee Brinson

Substitute form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3



Complete if Known

Application Number	10/606,678
Filing Date	June 26, 2003
First Named Inventor	Timothy M. Crowder
Group Art Unit	2857
Examiner Name	Unknown
Attorney Docket Number	9336-3

## U.S. PATENTS AND PATENT PUBLICATIONS

Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
KT	1.	20010053761	514/3	Dimarchi et al.	12/20/2001
	2.	20010007853	514/3	Dimarchi et al.	07/12/2001
	3.	D410,541	D24/110	Moulin	06/01/1999
	4.	3,565,070		Hanson et al.	02/23/1971
	5.	3,812,854		Michaels et al.	05/28/1974
	6.	3,948,284		Wilke et al.	04/06/1976
	7.	3,962,917		Terada	06/15/1976
	8.	3,971,377		Damani	07/27/1975
	9.	3,989,042		Mitsui et al.	11/02/1976
	10.	4,113,809		Abair et al.	09/12/1968
	11.	4,147,166		Hansen	04/03/1979
	12.	4,319,155	310/316	Nakai et al.	03/09/1982
	13.	4,393,884		Jacobs	07/19/1983
	14.	4,446,862		Baum et al.	05/08/1984
	15.	4,600,855		Strachan	07/15/1986
	16.	4,607,254		Carlson	08/19/1986
	17.	4,648,393		Landis et al.	03/10/1987
	18.	4,778,054	206/531	Newell et al.	10/18/1988
	19.	4,819,629		Jonson	04/11/1989
	20.	4,877,989		Drews et al.	10/31/1989
	21.	5,063,922		Hakkinen	11/12/1991
	22.	5,349,947	128/203.21	Newhouse et al.	09/27/1994
	23.	5,363,842		Mishelevich et al.	11/15/1994
	24.	5,388,572	128/203.15	Mulhauser et al.	02/14/1995
	25.	5,437,271	128/203.15	Hodson et al.	08/01/1995
	26.	5,469,843	128/203.15	Hodson	11/28/1995
	27.	5,482,030	128/200.23	Klein	01/09/1996
	28.	5,482,032	128/203.15	Smith et al.	01/09/1996
	29.	5,497,764	128/200.14	Ritson et al.	03/12/1996
	30.	5,505,196	128/203.15	Herold et al.	04/09/1996
	31.	5,507,277	128/200.14	Rubsamen et al.	04/16/1996
	32.	5,509,404	128/200.14	Lloyd et al.	04/23/1996
	33.	5,520,166	128/200.14	Ritson et al.	05/28/1996
	34.	5,522,378	128/200.14	Ritson et al.	06/04/1996
	35.	5,522,385	128/203.26	Lloyd et al.	06/04/1996
	36.	5,542,410	128/200.14	Goodman et al.	08/06/1996
	37.	5,544,646	128/200.14	Lloyd et al.	08/13/1996
	38.	5,558,085	128/200.14	Rubsamen et al.	09/24/1996
	39.	5,577,497	128/203.15	Mecikalski et al.	11/26/1996
	40.	5,608,647	364/509	Rubsamen et al.	03/04/1997
	41.	5,622,162	128/203.12	Eisele et al.	04/22/1997
	42.	5,622,166	128/203.12	Cameron et al.	04/22/1997
	43.	5,642,727	128/203.15	Datta et al.	07/01/1997
	44.	5,655,523	128/315	Hodson et al.	08/12/1997
	45.	5,660,168	128/200.14	Lloyd et al.	08/26/1997
	46.	5,672,581	514/3	Rubsamen et al.	09/30/1997
	47.	5,694,919	128/200.14	Rubsamen et al.	12/09/1997
	48.	5,694,920	128/200.16	Abrams et al.	12/09/1997
	49.	5,699,789	128/203.15	Hendricks	12/23/1997
	50.	5,709,202	128/200.14	Lloyd et al.	01/20/1998
	51.	5,718,222	128/200.14	Lloyd et al.	02/17/1998
	52.	5,724,957	128/200.14	Rubsamen et al.	03/10/1998
	53.	5,724,959	128/203.15	McAughey et al.	03/10/1998

*WFOG 8/20/05 #7*

Substitute form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/434,009- 606,1678
		Filing Date	May 8, 2003
		First Named Inventor	Timothy M. Crowder
		Group Art Unit	3761
		Examiner Name	Unknown
Sheet 2 of 3	Attorney Docket Number		9336-3

KT	54.	5,727,546	128/203.15	Clarke et al.	03/17/1998
	55.	5,735,263	128/200.14	Rubsamen et al.	04/07/1998
	56.	5,740,793	128/203.15	Hodson et al.	04/21/1998
	57.	5,743,250	128/200.14	Gonda et al.	04/28/1998
	58.	5,743,252	128/200.14	Rubsamen et al.	04/28/1998
	59.	5,755,218	128/200.14	Johansson et al.	05/26/1998
	60.	5,767,068	514/9	VanDevanter et al.	06/16/1998
	61.	5,770,152	422/73	Schuster et al.	06/23/1998
	62.	5,792,057	600/431	Rubsamen et al.	08/11/1998
	63.	5,813,397	128/200.14	Goodman et al.	09/29/1998
	64.	5,819,726	128/200.14	Rubsamen et al.	10/13/1998
	65.	5,823,178	128/200.14	Lloyd et al.	10/20/1998
	66.	5,823,434	239/102.2	Cooper	10/20/1998
	67.	5,826,570	128/200.14	Goodman et al.	10/27/1998
	68.	5,829,435	128/203.21	Rubsamen et al.	11/03/1998
	69.	5,829,436	128/200.14	Rubsamen et al.	11/03/1998
	70.	5,855,564	604/62	Ruskewicz et al.	01/05/1999
	71.	5,857,456	128/203.15	Sun et al.	01/12/1999
	72.	5,871,010	128/203.15	Datta et al.	02/16/1999
	73.	5,873,358	128/200.14	Gonda et al.	02/23/1999
	74.	5,875,776	128/203.15	Vaghefi	03/02/1999
	75.	5,884,620	128/200.14	Gonda et al.	03/23/1999
	76.	5,888,477	424/45	Gonda et al.	03/30/1999
	77.	5,894,841	128/203.12	Voges	04/20/1999
	78.	5,906,202	128/203.23	Schuster et al.	05/23/1999
	79.	5,910,301	424/45	Farr et al.	06/08/1999
	80.	5,915,378	128/200.22	Lloyd et al.	06/29/1999
	81.	5,921,237	128/203.21	Eisele et al.	07/13/1999
	82.	5,934,272	128/200.22	Lloyd et al.	08/10/1999
	83.	5,938,118	239/102.2	Cooper	08/17/1999
	84.	5,941,240	128/200.14	Gonda et al.	08/24/1999
	85.	5,957,124	128/200.22	Lloyd et al.	09/28/1999
	86.	5,960,609	53/428	Abrams et al.	10/05/1999
	87.	5,960,792	128/203.22	Lloyd et al.	10/05/1999
	88.	5,970,973	128/200.14	Gonda et al.	10/26/1999
	89.	5,971,951	604/62	Ruskewicz et al.	10/26/1999
	90.	5,975,076	128/203.15	Yianneskis et al.	11/02/1999
	91.	5,993,783	424/46	Eljamal et al.	11/30/1999
	92.	6,012,450	128/200.14	Rubsamen	01/11/2000
	93.	6,012,454	128/203.15	Hodson et al.	01/11/2000
	94.	6,014,969	128/200.14	Lloyd et al.	01/18/2000
	95.	6,024,090	128/204.23	Gonda et al.	02/15/2000
	96.	6,026,809	125/203.15	Abrams et al.	02/22/2000
	97.	6,051,551	514/3	Hughes et al.	04/18/2000
	98.	6,062,214	128/200.23	Howlett	05/16/2000
	99.	6,063,138	23/295R	Hanna et al.	05/16/2000
	100.	6,070,575	128/203.12	Gonda et al.	06/06/2000
	101.	6,080,762	514/337	Allen et al.	06/27/2000
	102.	6,085,753	128/898	Gonda et al.	07/11/2000
	103.	6,089,227	128/203.15	Nilsson	07/18/2000
	104.	6,095,134	128/200.14	Sievers et al.	08/01/2000
	105.	6,095,141	128/204.26	Arner et al.	08/01/2000
	106.	6,095,142	128/205.23	Giorgini	08/01/2000
	107.	6,098,615	128/200.14	Lloyd et al.	08/08/2000
	108.	6,098,620	128/204.23	Lloyd et al.	08/08/2000
	109.	6,102,035	128/203.15	Asking et al.	08/15/2000
	110.	6,109,261	128/203.15	Clarke et al.	08/29/2000

Examiner Signature	K. Tran	Date Considered	2/23/05
--------------------	---------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/484,889 606,678
		Filing Date	May 8, 2003
		First Named Inventor	Timothy M. Crowder
		Group Art Unit	3761
		Examiner Name	Unknown
Sheet 3 of 3	Attorney Docket Number	9336-3	

KT	111.	6,116,238	128/203.15	Jackson et al.	09/12/2000
	112.	6,119,953	239/8	Gañán-Calvo et al.	09/19/2000
	113.	6,123,068	128/200.24	Lloyd et al.	09/28/2000
	114.	6,131,567	128/200.14	Gonda et al.	10/17/2000
	115.	6,131,570	128/203.26	Schuster et al.	10/17/2000
	116.	6,142,146	128/203.15	Abrams et al.	11/07/2000
	117.	6,143,277	424/45	Ashurst et al.	11/07/2000
	118.	6,152,130	128/204.21	Abrams et al.	11/28/2000
	119.	6,167,880	128/200.14	Gonda et al.	01/02/2001
	120.	6,182,655	128/203.15	Keller et al.	02/06/2001
	121.	6,192,876	125/205.25	Denyer et al.	02/27/2001
	122.	6,192,882	128/203.21	Gonda	02/27/2001
	123.	6,196,218	128/200.14	Voges	03/06/2001
	124.	6,209,538	128/203.15	Casper et al.	04/03/2001
	125.	6,230,706	128/203.12	Gonda et al.	05/15/2001
	126.	6,237,590	128/203.15	Leedom et al.	05/29/2001
	127.	6,250,298	128/200.14	Gonda et al.	06/26/2001
	128.	6,263,872	128/203.26	Schuster et al.	07/24/2001
	129.	6,271,206	514/44	Pillai et al.	08/07/2001
	130.	6,288,360	219/121.71	Beste	09/11/2001
	131.	6,295,986	128/203.12	Patel et al.	10/02/2001
	132.	6,328,033	128/203.15	Avrahami et al.	12/11/2001
	133.	6,335,316	514/12	Hughes et al.	01/01/2002
	134.	6,348,209	624/435	Placke et al.	02/19/2002
	135.	6,349,719	128/200.14	Gonda	02/26/2002
	136.	6,351,984	73/40.7	Srinivasan	03/05/2002
	137.	6,351,987	73/53.01	Winston et al.	03/05/2002
	138.	6,354,516	239/331	Patel et al.	03/12/2002
	139.	6,369,354	219/121/71	Beste	04/09/2002
→	140.	6,651,341	30/2	Myrman	11/25/2003

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office	Number	Kind Code (if known)		
KT	141.		EP1172122A1	A61M 15/00	McDermont et al.	01-16-2002
	142.		EP1166812A	A61M 15/00	Gumaste	01-02-2002
	143.		WO 01/68169 A	A61M 15/00	Crowder	09-20-2001
	144.		EP1106196A	A61M 15/00	Ohki et al.	06-13-2001
	145.		WO99/65551	A61M 15/00	Sosiak et al.	12-23-1999
→	146.		EP0129985	A61M 15/00	Price et al.	01-02-1985

OTHER NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		
KT	147.	CROWDER, ET AL., 2001: <i>an Odyssey in Inhaler Formulation and Design</i> , Pharmaceutical Technology, pp. 99-113, July 2001.		
	148.	PEART ET AL., <i>New Developments in Dry Powder Inhaler Technology</i> , American Pharmaceutical Review, Vol. 4, n.3, pp. 37-45 (2001).		
	149.	PRIME ET AL., <i>Review of Dry Powder Inhalers</i> , 26 Adv. Drug Delivery Rev., pp. 51-58 (1997).		
	150.	HICKEY ET AL., <i>A new millennium for inhaler technology</i> , 21 Pharm. Tech., n.6, pp. 116-125 (1997).		
	151.	<a href="http://advair.ibreathe.com/consumer/2_2_2_taking_advair_animation.htm">http://advair.ibreathe.com/consumer/2_2_2_taking_advair_animation.htm</a> , ADVAIR DISKUS 100/50, 3 sheets, 1997.		
→	152.	PCT International Search Report, International Application No. PCT/US03/14619 mailed December 23., 2003.		

Examiner Signature	k - Tran	Date Considered	2/24/05
--------------------	----------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **C1** of **C1****Complete if Known**

Application Number	10/606,678
Filing Date	June 26, 2003
First Named Inventor	Timothy M. Crowder
Group Art Unit	2857
Examiner Name	Unknown
Attorney Docket Number	9336-3

**U.S. PATENTS AND PATENT PUBLICATIONS**

Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
KT ↓	1.	6,328,033	128/203.15	Avrahami	12-11-2001
	2.	6,208,065	310/328	Ueyama	03-27-2001
	3.	6,167,880	128/200.14	Gonda et al.	01-02-2001
	4.	6,152,130	128/204.21	Abrams et al.	11-28-2000
	5.	5,694,920	128/200.16	Abrams et al.	12-09-1997
	6.	5,618,177	433/88	Abbott	04-08-1997
	7.	4,472,091	406/132	Callahan	09-18-1984

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			

**OTHER NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T
KT	8.	PCT International Search Report, International Application No. PCT/US03/20842 filed June 26, 2003; mailed August 23, 2003.	
KT	9.	PCT International Search Report, International Application No. PCT/US03/20843 filed June 26, 2003; mailed August 23, 2003.	
KT	10.	PCT International Search Report, International Application No. PCT/US03/20976 filed June 26, 2003; mailed August 23, 2003.	
Examiner Signature		<b>K. Tran</b>	Date Considered <b>2/24/05</b>

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

12/04

Substitute form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b> Application Number: 10/606,678 Filing Date: June 26, 2003 First Named Inventor: Timothy M. Crowder Group Art Unit: 2857 Examiner Name: Khoi H. Tran Attorney Docket Number: 9336-3	
Sheet	D1	of	D1

U.S. PATENTS AND PATENT PUBLICATIONS					
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
KT	1.	6,065,509	141/71	Bonney et al.	05-23-2000

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			

OTHER NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T
KT	2.	BROWN ET AL., "Piezo-Electronic Inhaler", Drug Delivery Technology, Vol. 4, No. 8, pp. 90-93, October 2004.	

Examiner Signature	K. Tran	Date Considered	2/24/05
--------------------	---------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute form 1449A/PTO		Complete If Known		RECEIVED CENTRAL FAX CENTER
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/606.678	JAN 06 2005
		Filing Date	June 26, 2003	
		First Named Inventor	Timothy M. Crowder	
		Group Art Unit	2857	
		Examiner Name	Khoi H. Tran	
		Attorney Docket Number	9336-3	
Sheet	E1	of E1		

U.S. PATENTS AND PATENT PUBLICATIONS							
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code (if known)				
KT	1.	5,583,304		Kalidindi	12/10/1996		
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			
KT	2.		JP 58-067330 Abstract in English		Fumio	04/21/1983	
<b>OTHER NON PATENT LITERATURE DOCUMENTS</b>							
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published					T
Examiner Signature		K. Tran			Date Considered	2/24/05	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute form 1449A/PTO		<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/606,678	
		Filing Date	June 26, 2003	
		First Named Inventor	Timothy M. Crowder	
		Group Art Unit	2857	
		Examiner Name	Unknown	
Sheet	1	of 1	Attorney Docket Number	9336-3

U.S. PATENTS AND PATENT PUBLICATIONS					
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			
KT	1.		WO2004/02827 A1	B65B 1/08	Boeckl et al.	01/08/2004	
KT	2.		WO99/19215	B65B 1/36	Stout et al.	04/22/1999	
KT	3.		EP1021335 B1	B65B 1/36	Stout et al.	06/25/2003	
	4.						
	5.						
	6.						
	7.						

OTHER NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T	

Examiner Signature	K. Tran	Date Considered	2/24/05
--------------------	---------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.